## Claim Listing

1-36. (Cancelled)

37. (Currently amended) An isolated DIO-1 polypeptide coded for by SEQ ID NO: 1 and functionally equivalent variants and alleles thereof.

38. (Currently amended) The polypeptide of Claim 37, comprising the mature human amino acid sequence of SEQ ID NO:[[2]]3 and functionally equivalent variants thereof.

39. (Currently amended) An isolated DIO-1 polypeptide derived from the DNA sequence SEQ ID NO:[[3]]2 and functionally equivalent variants and alleles thereof.

40. (Currently amended) ~~A polypeptide according to Claim 39~~, An isolated DIO-1 polypeptide derived from the DNA sequence SEQ ID NO:2 and variants and alleles thereof, comprising the mature murine amino acid sequence in SEQ ID NO: 4.

41-57. (Cancelled)

58. (Currently amended) A pharmaceutical formulation comprising ~~compounds~~ a polypeptide of SEQ ID NO:[[2]]3 or SEQ ID NO: 4, ~~agonists or antagonists to SEQ ID NO: 2 or SEQ ID NO: 4~~ and one or more therapeutically acceptable excipients.

59-60. (Cancelled)

61. (Currently amended) ~~A compound~~ An isolated polypeptide according to SEQ ID NO:[[2]]3 or SEQ ID NO: 4 ~~or agonists or antagonists to them~~ for use as a medicament.

**In the Specification**

Please replace the paragraph on page 3, line 7, with the following paragraph:

-- Differential display experiments were carried out using an RNAmap kit (GenHunter Corp.,) according to the manufacturer's specifications, Briefly, 200 ng of total cytoplasmic RNA (after DNase treatment with the MessageClean Kit: GenHunter) isolated from WOL-1 cells at 0, 2, 4 and 8 h after IL-7 withdrawal were reverse-transcribed with oligo(dT) primers ($T_{12}$MN) in the presence of Moloney murine leukemia virus reverse transcriptase. The were then amplified with several combinations of 5' decamer arbitrary primers and the $T_{12}$MN used for RT in the presence of 35S-dATP (1200 Ci/mmol). The amplified products were resolved in an 8 M urea, 6% polyacrylamide DNA sequencing gel and analyzed by autoradiography. Several bands of interest were isolated, reamplified, cloned in the pCR-Script SK(+) vector (Stratagene, LaJolla, CA) and further used for Northern analysis and sequencing. The full-length DIO-1 cDNA was obtained from WOL-1 cDNA by 5' RACE using a Marathon cDNA Amplification Kit (Clontech, Palo Alto, CA), with a 3' primer called L282 (5'-AGGTGTACCTTGTACAGCAGTGAAAC-3') (SEQ ID NO:5). The resulting 2.6 Kbp band was excised from the gel and cloned in the TA-type vector pGEM-T (Promega, Madison, WI). The resulting clones were sequence-analyzed for orientation, and the oriented sense with respect to the T7 promoter was called DIO-1pGEM-T.--

Please replace the paragraph on page 4, line 28, with the following paragraph:

-- A peptide was synthesized corresponding to amino acids 58-72 of murine DIO-1 with an additional N terminal cysteine (CSLRRSGRQPKRTERV)(SEQ ID NO:6): it was then coupled to maleimide-activated keyhole limpet hemocyanin and the purified conjugate injected into New Zealand White rabbits. Polyclonal antibody was affinity purified against the peptide coupled to a column. WOL-1 were IL-7 starved by washing four times in complete IMDM without FCS, then resuspended in the same volume of medium plus 10% FCS.--

Please replace the sequence listing after the abstract of the specification with the enclosed 8 pages of sequence listing.